


Understanding the Digital World

FTTH Panorama APAC

Market at December 2016

FTTH APAC Conference 2017 – 26 April 2017, New Delhi

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FTTH Panorama APAC

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2. FTTH/B in APAC

- Overview
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3. APAC FTTH/B main trends

- FTTH/B subscribers and Homes Passed distribution
- Top 10 countries in terms of % of FTTH/B Homes Passed over total Households
- FTTH/B Take up rate in the region
- FTTH/B Penetration rate

4. Market trends for FTTH/B in APAC

Study background

Study Background

- **Mission on behalf of the FTTH Council APAC - 7th Edition**



- **Objective:** to provide a complete summary of the status of FTTH/B in APAC
 - **21 countries** analyzed¹
 - FTTH/B Definition by FTTH Council Worldwide²



- **Characterization of each project includes:**
 - Organization initiating the project
 - Key parameters & Figures
 - Technical parameters
 - Financing & Business model



- **Methodology use**
 - Desk research
 - **Direct contacts** with FTTH players (questionnaires, phone interviews) & IDATE's partners in APAC
 - Information exchange with FTTH Council, APAC chapter members

¹ Australia, Bangladesh, China, Hong Kong, India, Indonesia, Japan, Kazakhstan, Malaysia, Myanmar, New Zealand, Pakistan, Philippines, Singapore, South Korea, Taiwan, Thailand, Vietnam plus Cambodia, Laos and Sri Lanka

² FTTH/B definition available [here](#)

FTTH/B in Asia-Pacific

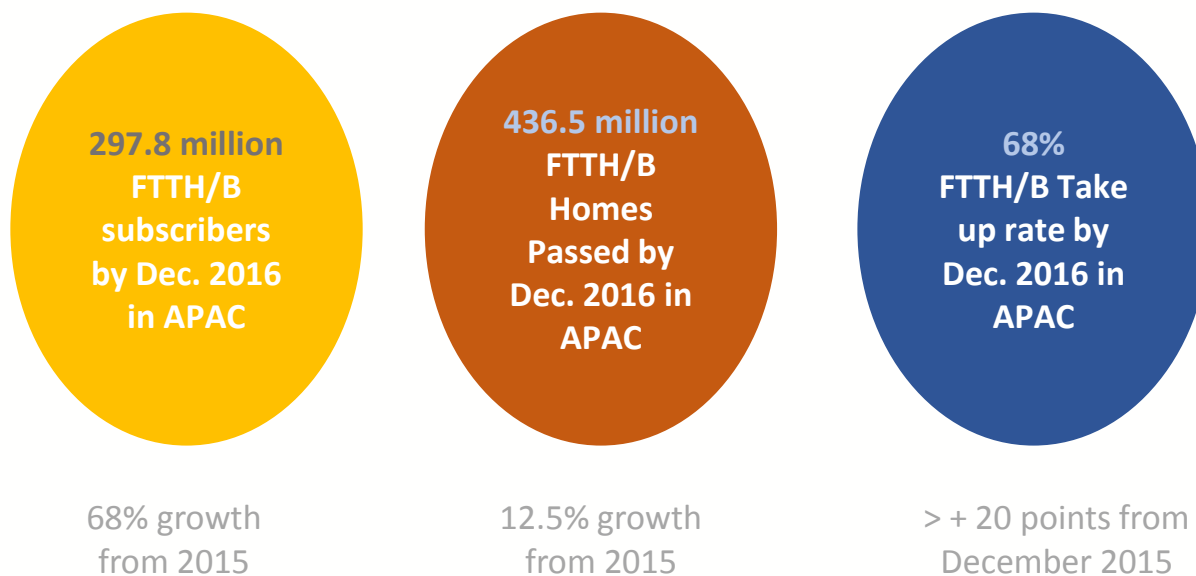
A year where alternative ISP and Incumbents are leading the FTTH/B evolution

- A positive evolution: 94 FTTx projects in the region
- Incumbents have deployed fibre in a dynamic way during 2016 covering with fibre more homes:
 - Incumbents growth rate: **22.6%...** representing more than **80%**
 - Alternative operators growth rate: **6.5%**
 - National programs (1) : **5 million Homes Passed**

(1) Australia, New Zealand, Singapore

Source: IDATE for FTTH Council APAC

FTTH/B is taking a bigger place in the APAC Market due to a positive evolution in the deployment and specially in the user's adoption...

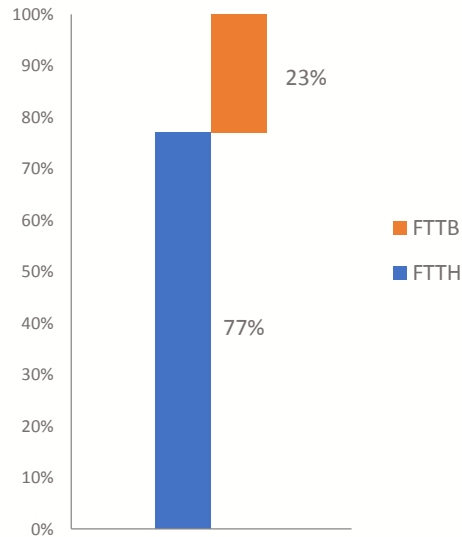


Source: IDATE for FTTH Council APAC

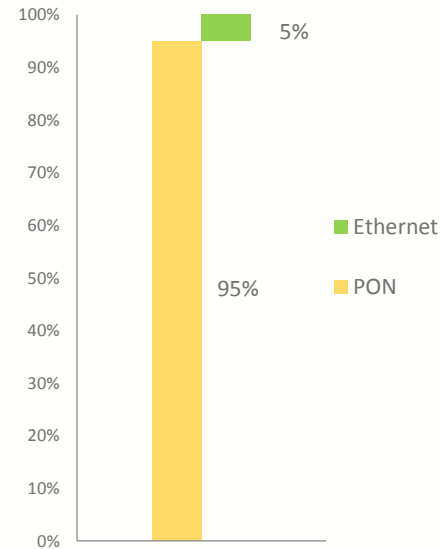
Take up rate = FTTH-B subs / Total FTTH-B Homes Passed

Regarding FTTH/B technologies...FTTH rollouts and PON Solutions have evolved positively in 2016

Main Fibre architecture
deployed (*) in %
By December-2016



Main Fibre technology
deployed (*) in %
By December-2016



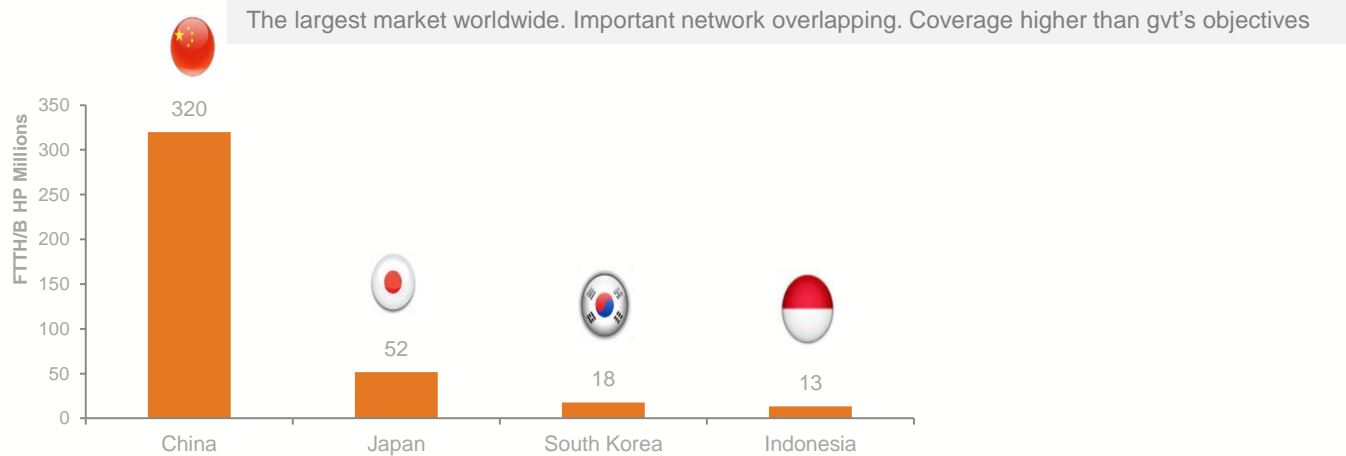
*Home Passed segmentation

Source: IDATE for FTTH Council APAC

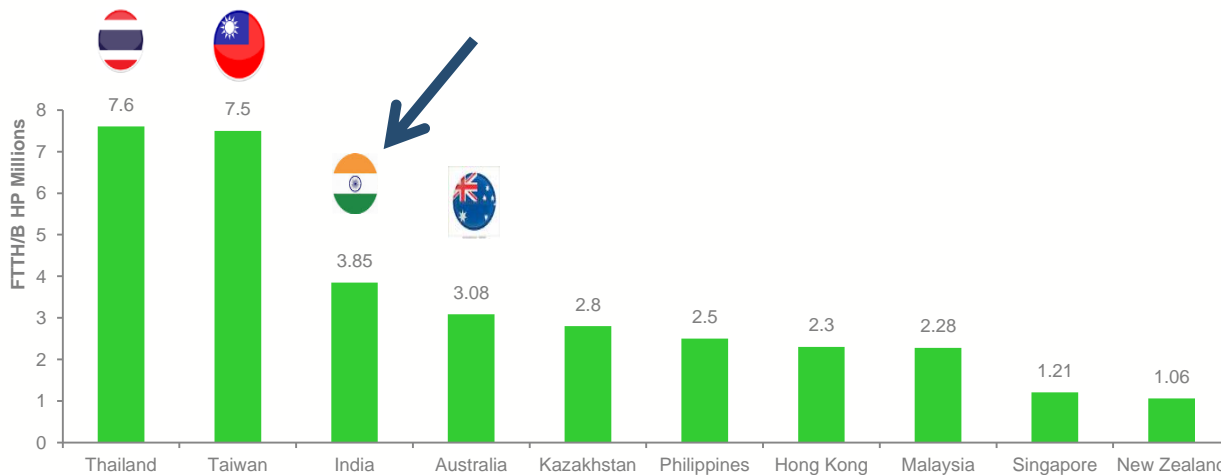
APAC FTTH/B leading countries

Total FTTH/B Homes Passed by country

The Top-4: China is N° 1 by far due to the size of its market. Even though, countries like Japan, South Korea and Indonesia have reached 50 or more than 10 million homes passed with FTTH/B networks



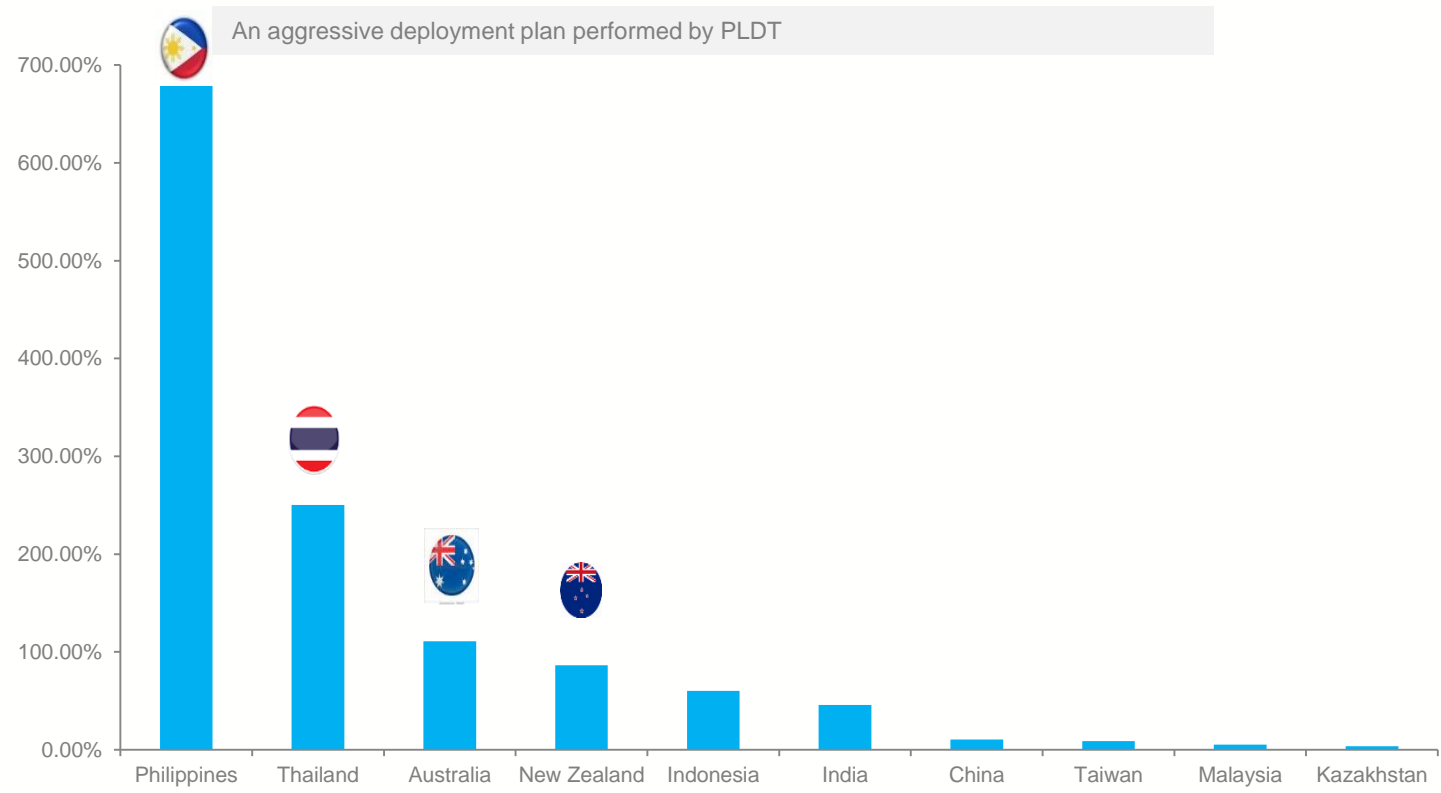
Also it can be observed 10 countries that have deployed FTTH/B networks passing more than 1 million homes



Source: IDATE for FTTH Council APAC

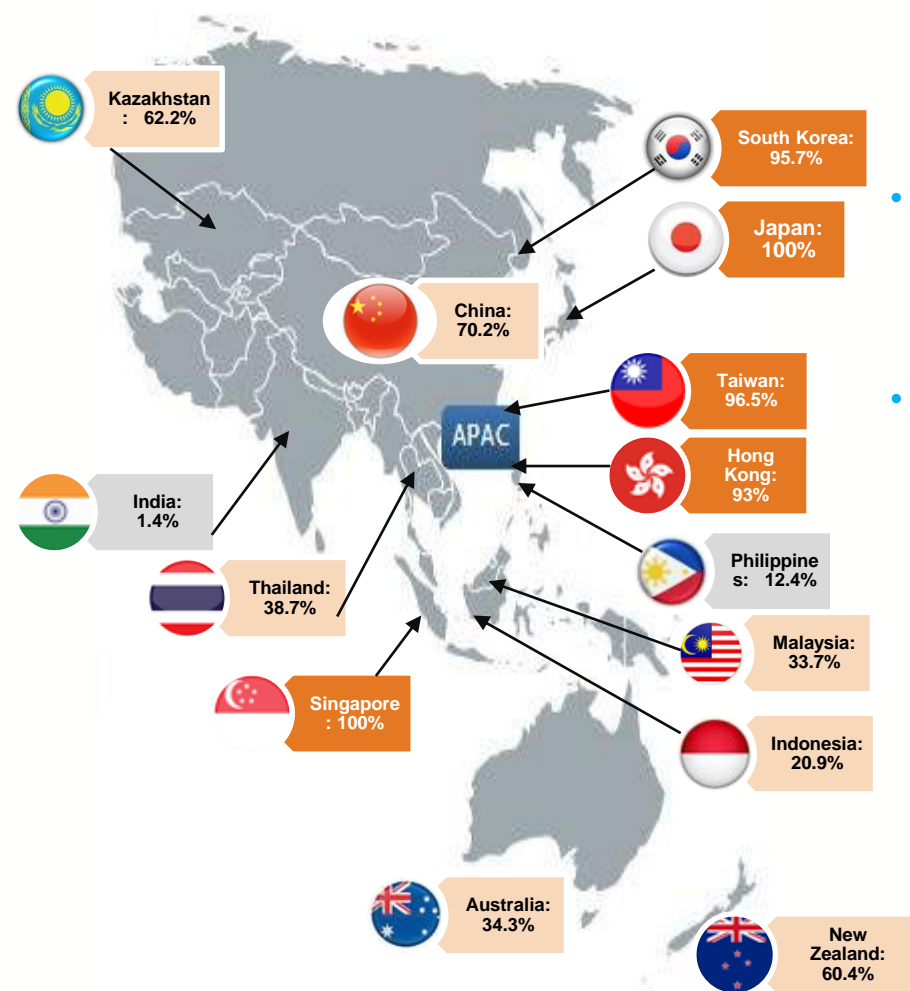
Also, significant deployment efforts has been executed during 2016 for example in Philippines, Thailand, Australia and New Zealand...

% variation from Dec-2015 to Dec-16 in the number of FTTH/B Homes Passed by country



Source: IDATE for FTTH Council APAC

Coverage: Top countries in terms of % of FTTH/B Homes Passed in total Households

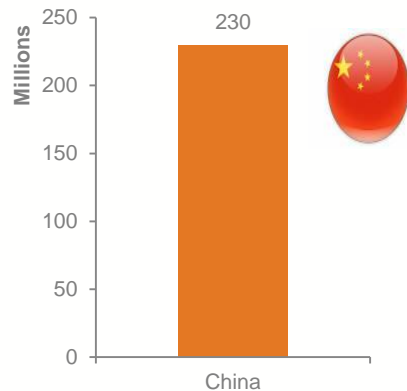


- Number of Homes Passed not representative of effective coverage
- Here, the ratio represented is % of FTTH/B Homes Passed in total households
 - 5 countries > 90% !!!
 - 7 countries > 20%
 - 1 country over 10%

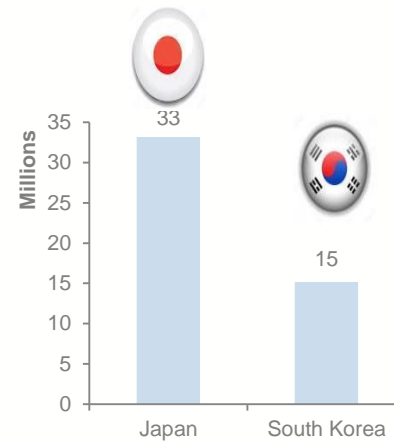
Source: IDATE for FTTH Council APAC

Total FTTH/B Subscribers by country

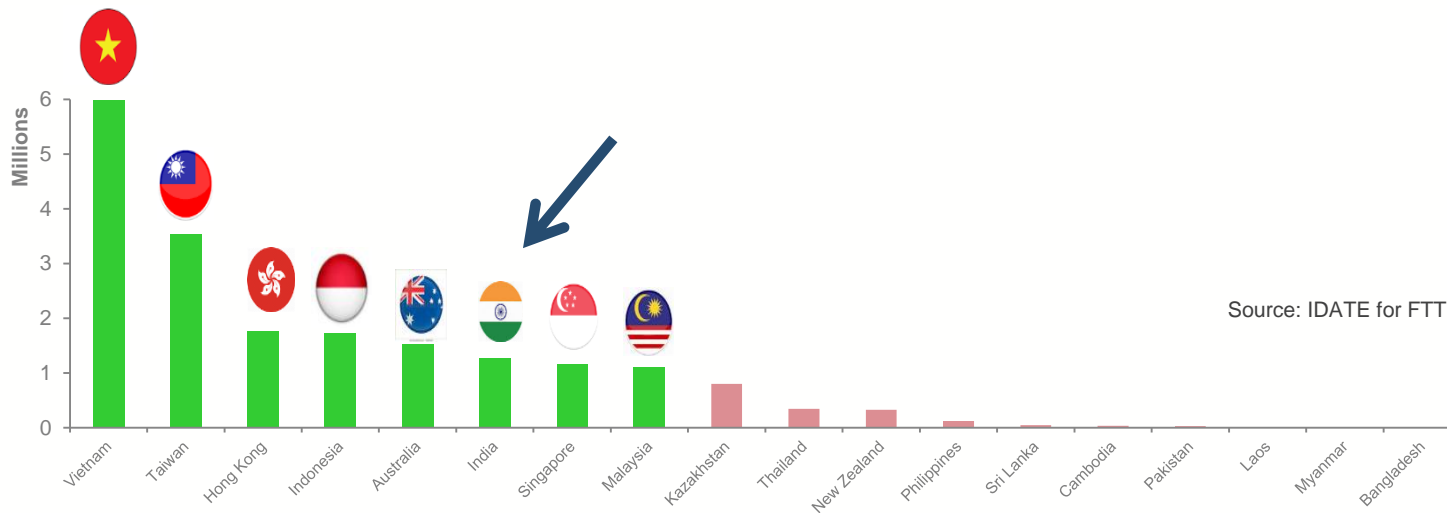
While China has increased its fibre subscribers and is still the leading country....



... countries like Japan and South Korea also have more than 30 or 10 million FTTH/B subscribers....



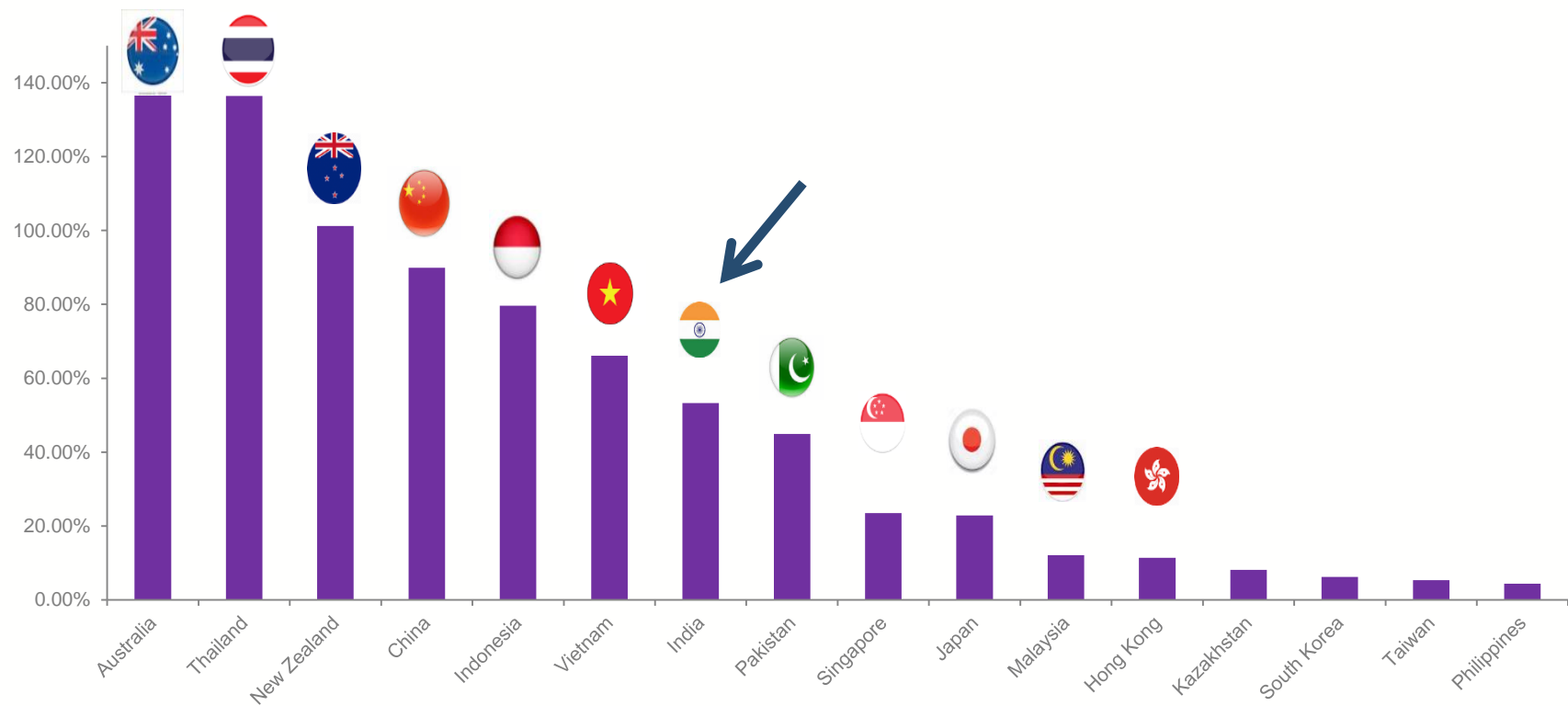
... and it can be observed 8 countries that already passed 1 million of FTTH/B subscribers



Source: IDATE for FTTH Council APAC

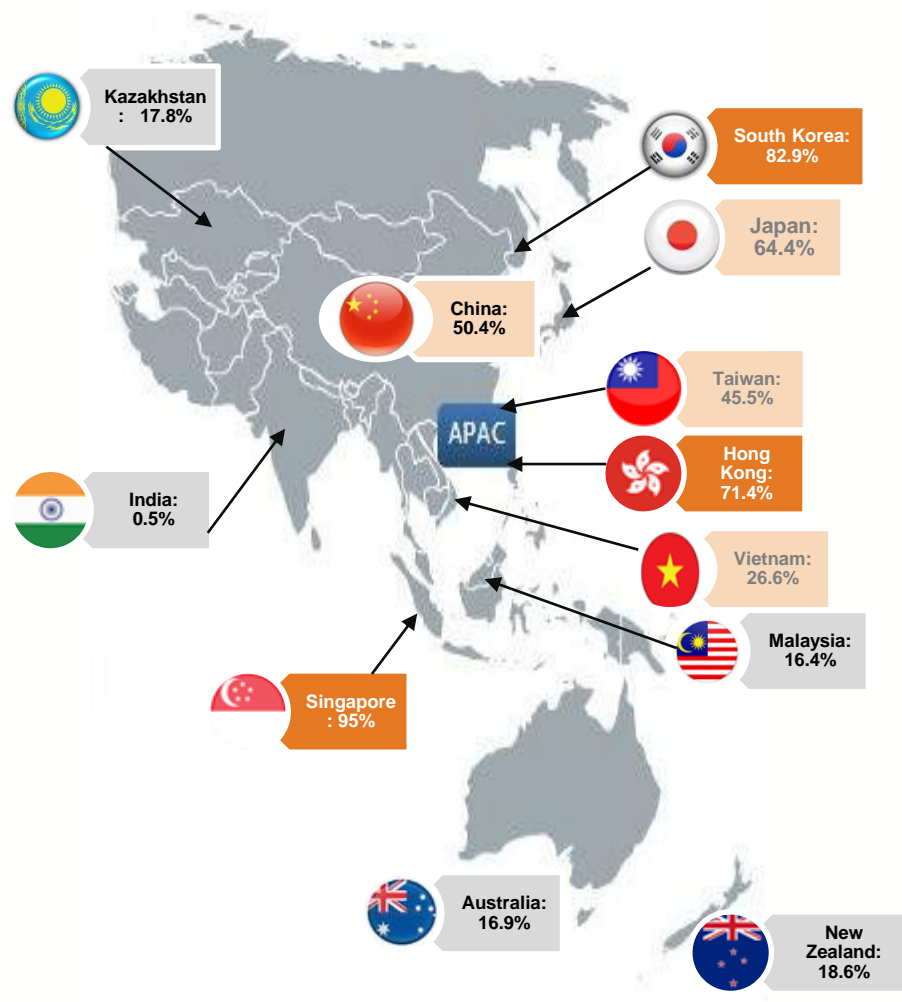
But also it can be appreciated a fast evolution in 2016 in terms of FTTH/B subscribers in some countries like Australia, Thailand, New Zealand, China, India....

% variation from Dec-2015 to Dec-16 in the number of FTTH/B Subscribers by country



Source: IDATE for FTTH Council APAC

Penetration rates of FTTH/B in the region...



- **APAC has continued the trend to deploy FTTH/B**

- 13 countries among in the Global Ranking:

- 3 countries with a penetration rate > 70%
- 4 countries with a penetration rate between 20% and 70%
- 4 countries with a penetration rate > 10%

Source: IDATE for FTTH Council APAC

Market trends for FTTH/B in APAC

Market trends

Based on the size of the market, China is the main worldwide market in terms of number of subscribers

- 3 players involved on this market,
- By end 2016 China Telecom and China Unicom are the leaders with respectively 106 and 85 million subscribers
- The market level is in line with the **Government's objectives** in terms of subscriptions, and higher in terms of coverage (300 M HP at end 2020)

Japan and South Korea are the historical leaders

- The markets are still growing but at a lower pace (Japan +22% and South Korea +6% subscribers in 2016)
- Coverage is exhaustive in both countries and the growth is now supported by the switch of end users from one access technology to another

Australia, New Zealand and Thailand with the highest growths in terms of subscribers

- **National program** in Australia and New Zealand, with dedicated players involved in the rollout of the new infrastructure and in the commercialization of the new network
- Thailand with fast evolution with its operator in the FTTH deployment and adoption

Other significant markets:

- Indonesia, Taiwan then India and Philippines progressing

Challenges and drivers for FTTH

> Demography: a huge market potential

- India and China are the most populated countries in the world
- MDUs are dominating in large cities especially in China
- A huge potential of 550 M population: Bangladesh, Philippines, Vietnam and Pakistan

> Low competition from other xDSL or Cable networks

- The “**quality gap**” between copper and fibre networks is important: end users need fibre for higher bandwidth
- **Cablecos** are less dominating the broadband market than in Europe or in the US ... and it's not going to change for now (SARFT in China)....a few exceptions like in India

> A key driver for mass market migration in APAC: NBN programs... the NZ success, now followed by the Australian one

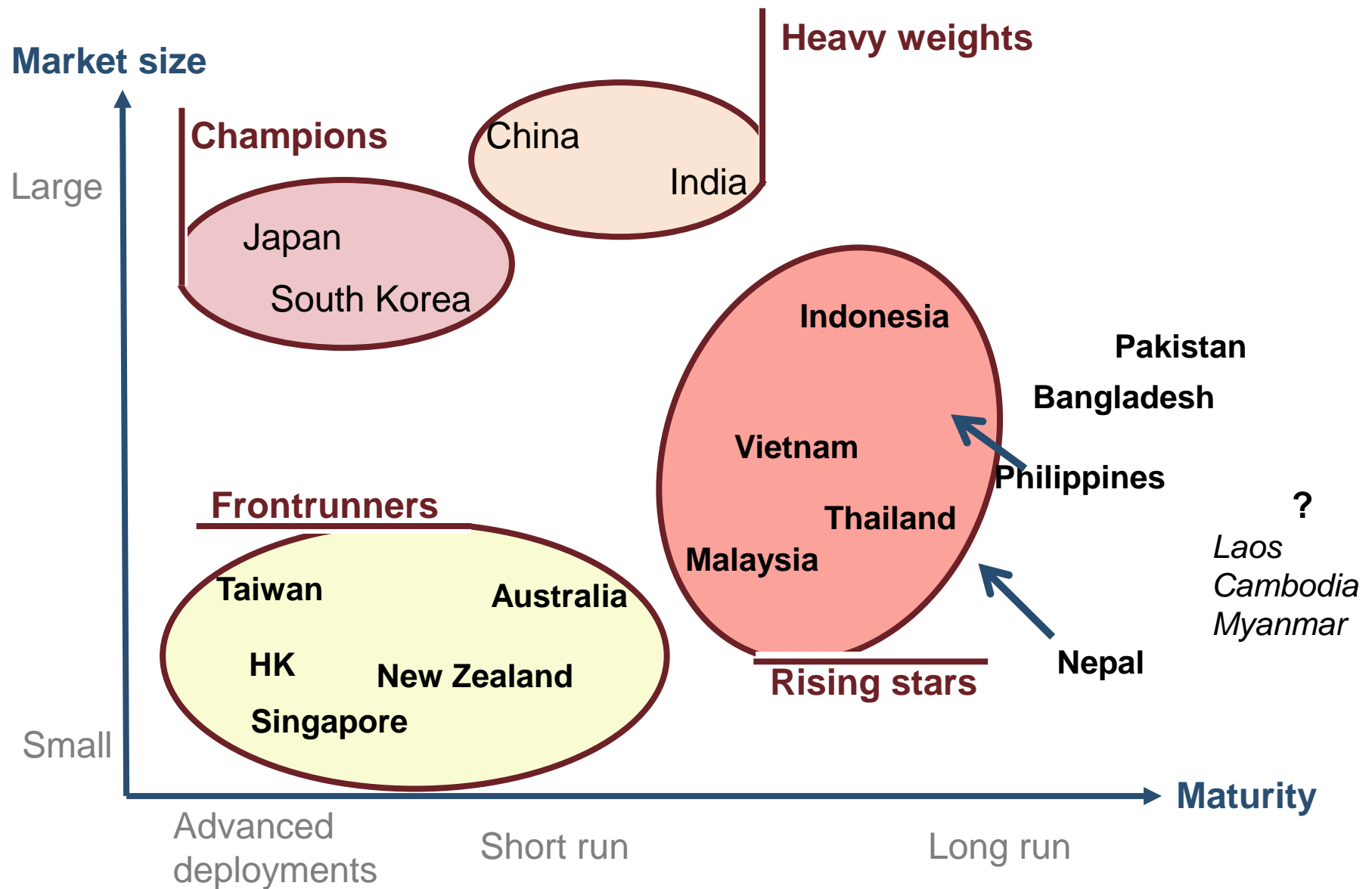
> Incumbents leading rollouts in APAC but also some free room for new entrants

- Some incumbents are deeply involved in national FTTH/B deployments (Philippines: PLDT accelerating now, Indonesia, Malaysia)
- New entrants in large countries (India), mature markets (HK) or emerging markets (Vietnam)

> APAC Fibre dynamic is also being pushed by Mobile demands...

- Fibre for mobile Backhaul : LTE and metro / small cells ... and 5G coming soon in APAC !!

FTTH/B APAC Markets evolution



Thank you!



FTTx & Gigabit

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Format	Type deliverable	Title	Publication date	Pages	Unit price (EUR)	Product Code
FTTx & Gigabit - 2017 and prior publications					14 000 (streamrate)	M 17500
xls	Dataset	World FTTx Market - data & forecasts up to 2021	2Q/4Q 2017	n.r.	6 000	M 17510DB
ppt	Report	State of World FTTx market	2Q/4Q 2017	40-80	3 000	M 17510SR
xls + ppt	Dataset + Report	World FTTx Market - data & forecasts up to 2020	26/12/2016	43	5 000	M 16505B
doc + ppt	Report	Gigabit Offerings	1Q 2017	20-40	2 000	M 17540MR
doc + ppt	Report	Fiber monetisation	2Q 2017	40-80	3 000	M 17530MR
doc + ppt	Report	SDN/NFV: virtualization & slicing	2Q 2017	40-80	3 000	M 17450MR
doc + ppt	Report	FTTH for emerging countries	2Q 2017	40-80	3 000	M 17550MR
doc + ppt	Report	G.Fast	3Q 2017	40-80	3 000	M 17520MR
doc + ppt	Report	Broadcast/Broadband	4Q 2017	40-80	3 000	M 17230MR
doc + ppt	Report	Connected Cities	02/12/2016	29	2 000	M 16505IN1
doc + ppt	Report	Ultrafast access technologies	01/12/2016	37	2 000	M 16505IN3
doc + ppt	Report	FTTx Vendors	02/10/2016	19	2 000	M 16505IN2
doc + ppt	Report	Digital Agenda Europe	20/07/2016	25	2 000	M 16507MR
doc + ppt	Report	Public Policies for ultra-fast broadband	03/06/2016	96	3 000	M 16408MR
doc + ppt	Report	LTE vs Fiber	18/12/2015	48	3 000	M 15506MR

Titles and scheduling of upcoming publications are indicative – details for available publications can be accessed online

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FTTH for ZZZ Generation !!!

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